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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,841	07/28/2003	Brett P. Monia	ISPH-0753	5829

27180 7590 05/31/2005

ISIS PHARMACEUTICALS INC
1896 RUTHERFORD RD.
CARLSBAD, CA 92008

EXAMINER	
ASHEN, JON BENJAMIN	
ART UNIT	**PAPER NUMBER**
1635	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/628,841	MONIA ET AL.	
	Examiner	Art Unit	
	Jon B. Ashen	1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-15* is/are pending in the application.

4a) Of the above claim(s) *15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/28/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I, claims 1, 2 and 4-14, in the reply filed on 3/10/2005 is acknowledged.

Status of the Application

2. Claims 1, 2 and 4-15 are pending in this application. Claim 15 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/10/2005. Claims 1, 2 and 4-14 are currently under examination in this Application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 2 and 4-10 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites, " a compound 8 to 50 nucleobases in length targeted to nucleobases 162 to 916 of a coding region of a nucleic acid molecule encoding inhibitor kappa B kinase gamma...". The person of ordinary skill in the art would not know what might be embraced with this terminology

since no absolute context has been established. What sequence would one in the art use as the basis for "162 to 916 of a coding region", for example? The metes and bounds of the claimed subject matter have not been established and no assumptions can be made as to what particular nucleotide sequence is being claimed, rendering this claim indefinite. Claims 2 and 4-14 are rejected due to their dependence on a rejected claim.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 2, 4-10 and 12-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Applicants amendment of claim 1 in the communication filed 12/10/2003) to recite, "nucleobases 162 to 916 of a coding region of..." introduces new matter. Applicant has pointed, in support of this amendment, to teachings throughout the specification as filed (Remarks/Arguments filed 12/10/2003). However, upon careful review of the specification, no express support could be found, in the specification as filed, for the newly claimed range of specifically targeted nucleobases 162 to 916 of a coding region of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma. No

support was found in the specification that would allow applicant to claim new and specifically designated target regions that are subsequences of the entire nucleic acid molecule encoding inhibitor-kappa B kinase-gamma that is originally disclosed. For example, although Table 1 presents species of antisense that fall within the newly claimed ranges, these species do not span the entire range as newly claimed. Further, the specification does not specifically contemplate these newly claimed ranges as particular ranges to be targeted by antisense, as newly claimed.

Claim Rejections - 35 USC § 102 or 35 USC § 103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. In light of the 112 2nd paragraph rejection set forth previously in this action, the particular nucleotide sequence that is being claimed in the instant application cannot be determined because there is no absolute context for the specific nucleobase positions recited in claim 1. Therefore, search of the prior art was made using Applicant's disclosed SEQ ID NO: 3, which is the only nucleotide sequence of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma that appears in the instant

Application. The following prior art is applied based on the reasonable interpretation that an antisense compound that targets nucleobases 162 to 916 of instant SEQ ID NO: 3 (set forth in the specification as filed as bracketing part of the coding region of an inhibitor-kappa B kinase-gamma encoding nucleic acid molecule) may reasonably be interpreted to be the antisense compound that is instantly claimed.

Additionally, the language of claim 11 requires that the compound of the invention, "specifically hybridizes with at least an 8-nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma." This language is interpreted in light of the disclosure of the specification which states, "The target sites to which these preferred sequences are complementary are herein below referred to as "active sites" and are therefore preferred sites for targeting. Therefore another embodiment of the invention encompasses compounds which hybridize to these active sites." The disclosure of the specification does not, therefore, provide a limiting definition of "active site" but rather, provides examples of what is referred to by "active site" that do not limit what is encompassed. The following prior art is applied based on the reasonable interpretation that an active site can be any site because neither the claim language or the specification limits an "active site" to the sites exemplified by Applicant.

9. Claims 1, 2, 4, 5 and 10-14 are rejected under 35 U.S.C. 102(b) or 35 USC 103(a) as being anticipated by or obvious over Robinson (WO 95/04142). The instant claims are drawn to a compound 8 to 50 nucleobases in length targeted to nucleobases

162 to 916 of a coding region of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma wherein said compound specifically hybridizes to and inhibits the expression of inhibitor-kappa B kinase-gamma (claim 1) wherein the compound is an antisense oligonucleotide (claim 2) that can be a chimeric oligonucleotide (claim 10) that comprises at least one modified internucleoside linkage (claim 4) that is a phosphorothioate linkage (claim 5) and a composition comprising the compound of claim 1 and a pharmaceutically acceptable carrier or diluent (claim 12) wherein the composition further comprises a colloidal dispersion system (claim 13) wherein the compound is an antisense oligonucleotide (claim 14) and a compound 8 to 50 nucleobases in length which specifically hybridizes with at least an 8 nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma (claim 11).

Robinson discloses an antisense oligonucleotide phosphorothioate of SEQ ID NO: 16 (pg. 25, line 9) that can be a chimeric oligonucleotide (pg. 13, lines 13-25) and that is complementary to nucleobase positions 969 to 714 of Applicant's instant SEQ ID NO: 3, a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma. Robinson discloses that the antisense oligonucleotides of his invention can be comprised in a composition with a pharmaceutically acceptable carrier that is phosphate buffered saline and that further comprises a Lipofectin reagent (DOTAP) (pg. 21, example 2, lines 9-13). The antisense oligonucleotide of Robinson disclosed as SEQ ID NO: 16 is a compound 8 to 50 nucleobases in length that will specifically hybridize to at least an 8

nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma (see ISIS 115409, Table 1, instant specification).

Furthermore, since the prior art antisense compound meets all the structural limitations of the claims, the prior art antisense oligonucleotide comprises a compound 8 to 50 nucleobases in length targeted to nucleobases 162 to 916 of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma that will specifically hybridize and inhibit expression of inhibitor-kappa B kinase-gamma and that will specifically hybridize to at least an 8 nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma, absent evidence to the contrary. The sequence cited above that shares less than 100% complementarity with the target gene (see accompanying alignment data showing 85% complementarity) is presumed to have inhibitory function since sequences with less than 100% complementarity meet the structural requirements of the claimed invention as indicated in the instant specification under the discussion of "specifically hybridizing." (e.g. page 12, line 27 bridge to page 13, line 10 of the instant specification). See, for example, MPEP § 2112, which states "[w]here applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. 'There is nothing inconsistent in concurrent rejections for obviousness under 35 U.S.C. 103 and for anticipation under 35 U.S.C. 102.' In re Best, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977). This same rationale should also apply to product, apparatus, and process claims

claimed in terms of function, property or characteristic. Therefore, a 35 U.S.C. 102/103 rejection is appropriate for these types of claims as well as for composition claims.

Therefore, the instant invention is anticipated or obvious over Robinson (WO 95/04142).

10. Claims 1-2 and 4-14 are rejected under 35 U.S.C. 102(e) or 35 USC 103(a) as being anticipated by or obvious over Monia et al (US 6,248,586). Instant claims 1, 2, 4, 5 and 10-14 are outlined in a previous rejection herein. Dependent claims 6-9 set forth particular limitations in regards to sugar and base moiety modifications that are made to the antisense compounds of the instant invention.

Monia et al. disclose SEQ ID NO: 47, a chimeric oligonucleotide "gapmer" that comprises phosphorothioate internucleoside linkages, 2' methoxyethyl (2'-MOE) sugar modifications and 5-methylcytosine base modifications (col. 44 bridge to col. 45) that is complementary to nucleobases 599 to 618 of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma (instant SEQ ID NO: 3). Monia et al. disclose that the antisense compounds of their invention can be formulated in a composition with a pharmaceutically acceptable carrier (col. 12, lines 49-52) and can be further comprised in liposomes (col. 17, beginning line 55) The antisense oligonucleotide of Monia et al., disclosed as SEQ ID NO: 47 is a compound 8 to 50 nucleobases in length that will specifically hybridize to at least an 8 nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma (see ISIS 115407 and 115408, Table 1, instant specification).

Furthermore, since the prior art antisense compound meets all the structural limitations of the claims, the prior art antisense oligonucleotide comprises a compound 8 to 50 nucleobases in length targeted to nucleobases 162 to 916 of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma that will specifically hybridize and inhibit expression of inhibitor-kappa B kinase-gamma and that will specifically hybridize to at least an 8 nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma, absent evidence to the contrary. The sequence cited above that shares less than 100% complementarity with the target gene (see accompanying alignment data showing 85% complementarity) is presumed to have inhibitory function since sequences with less than 100% complementarity meet the structural requirements of the claimed invention as indicated in the instant specification under the discussion of "specifically hybridizing." (e.g. page 12, line 27 bridge to page 13, line 10 of the instant specification). See, for example, MPEP § 2112, which states "[w]here applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. 'There is nothing inconsistent in concurrent rejections for obviousness under 35 U.S.C. 103 and for anticipation under 35 U.S.C. 102.' In re Best, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977). This same rationale should also apply to product, apparatus, and process claims claimed in terms of function, property or characteristic. Therefore, a 35 U.S.C. 102/103 rejection is appropriate for these types of claims as well as for composition claims.

Therefore, the instant invention is anticipated or obvious over Monia et al (US 6,248,586).

11. Claims 1-2 and 11-14 are rejected under 35 U.S.C. 102(e) or 35 USC 103(a) as being anticipated by or obvious over Kenwrick et al (US 6,824,972). This art is applied based on the interpretation of the instant claim language as set forth in section 6 above. The instant claims are outlined in a previous rejection herein. Kenwrick et al. disclose SEQ ID NO: 53 (col. 7, lines 5-30 and col. 87), an antisense oligonucleotide that is "a NF-κB essential modulator nucleic acid sequence of SEQ ID NO: 1 (col. 7, lines 5-30; col. 23, lines 7-15) that targets nucleobase positions 645 to 664 of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma (instant SEQ ID NO: 3). Kenwrick et al. disclose that the antisense compounds of their invention can be formulated in a composition with a pharmaceutically acceptable carrier (col. 45, lines 35-47) and can be further comprised in liposomes (col. 27, beginning line 63) The antisense oligonucleotide of Kenwrick et al., disclosed as SEQ ID NO: 53, is a compound 8 to 50 nucleobases in length that will specifically hybridize to at least an 8 nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma because it is 100% complementary to Applicant's instant SEQ ID NO: 3.

Furthermore, since the prior art antisense compound meets all the structural limitations of the claims, the prior art antisense oligonucleotide comprises a compound 8 to 50 nucleobases in length targeted to nucleobases 162 to 916 of a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma that will specifically hybridize and

inhibit expression of inhibitor-kappa B kinase-gamma and that will specifically hybridize to at least an 8 nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma, absent evidence to the contrary. The sequence cited above that shares less than 100% complementarity with the target gene (see accompanying alignment data showing 95% complementarity) is presumed to have inhibitory function since sequences with less than 100% complementarity meet the structural requirements of the claimed invention as indicated in the instant specification under the discussion of "specifically hybridizing." (e.g. page 12, line 27 bridge to page 13, line 10 of the instant specification). See, for example, MPEP § 2112, which states "[w]here applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. 'There is nothing inconsistent in concurrent rejections for obviousness under 35 U.S.C. 103 and for anticipation under 35 U.S.C. 102.' In re Best, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977). This same rationale should also apply to product, apparatus, and process claims claimed in terms of function, property or characteristic. Therefore, a 35 U.S.C. 102/103 rejection is appropriate for these types of claims as well as for composition claims.

Therefore, the instant invention is anticipated or obvious over Kenwrick et al (US 6,824,972).

12. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Krappmann et al. 2000 (J. Biol. Chem. 275: 29779-29787 which is Reference AG, PTO Form 1449 filed by Applicant in this Application 7/28/2003). The instant claim is outlined in a previous rejection herein. Krappmann et al. disclose GB58 IKKγ, an antisense oligonucleotide that specifically hybridizes to at least an 8 nucleobase portion of an active site on a nucleic acid molecule encoding inhibitor-kappa B kinase-gamma because it will hybridize to the target site identified in the instant specification as ISIS 115424, Table 1 (pg. 29780, col. 2, 2nd full paragraph). Therefore, Krappmann et al. anticipate the invention as set forth in claim 11.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art is made of record although, in light of the 112 2nd rejection set forth previously in this Action, it is not specifically applied to the instant claims. Applicant is advised that these references may be applied as prior art upon amendment of the instant claims which is sufficient to overcome the 112 2nd paragraph rejection set forth herein.

Fett et al. (W0 98/42722)

Agrawal (US 5,969,117)

Popoff et al. (US 6,379,960)

Cowsert (US 6,10,091)

Baker et al. (US 6,007,995)

Monia et al. (US 6,077,672)

Conclusion

14. No claim is allowable.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon B. Ashen whose telephone number is 571-272-2913. The examiner can normally be reached on 7:30 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Andrew Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service

center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Jba

DZ TC 1600

RESULT 9
US-08-098-942C-16/c
; Sequence 16, Application US/08098942C
; Patent No. 6410322
; GENERAL INFORMATION:
; APPLICANT: Robinson, Gregory S.
; TITLE OF INVENTION: Antisense Oligonucleotides That
; TITLE OF INVENTION: Inhibit VEGF Expression
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Michael S. Greenfield
; STREET: 10 S. Wacker Drive Suite 3000
; CITY: Chicago
; STATE: Illinois
; COUNTRY: U.S.A.
; ZIP: 60606
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/098,942C
; FILING DATE: July 27, 1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Greenfield, Michael S.
; REGISTRATION NUMBER: 37,142
; REFERENCE/DOCKET NUMBER: 93,538
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (312)715-1000
; TELEFAX: (312)715-1234
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 20 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; HYPOTHETICAL: YES
; ANTI-SENSE: YES
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: 1..20
; OTHER INFORMATION: /note= "phosphorothioate
; OTHER INFORMATION: internucleotide linkages"
US-08-098-942C-16

Query Match 2.1%; Score 15.8; DB 1; Length 20;
Best Local Similarity 89.5%; Pred. No. 37;
Matches 17; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy        696 AGCTGGAGAGTGAGCGCGA 714
              ||| |||||| ||||||||
Db         19 AGCCGGAGAGGGAGCGCGA 1
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RESULT 10
US-10-083-720A-10
; Sequence 10, Application US/10083720A
; Patent No. 6797813
; GENERAL INFORMATION:
; APPLICANT: de Waal Malefyt, Rene
; APPLICANT: Fickenscher, Helmut
; APPLICANT: Fleckenstein, Bernhard
; APPLICANT: Knappe, Andrea
; TITLE OF INVENTION: MAMMALIAN CYTOKINE; RELATED REAGENTS
; FILE REFERENCE: DX0644KBK
; CURRENT APPLICATION NUMBER: US/10/083,720A
; CURRENT FILING DATE: 2002-02-28
; PRIOR APPLICATION NUMBER: 09/363,993
; PRIOR FILING DATE: 1999-07-29
; PRIOR APPLICATION NUMBER: 08/934,959
; PRIOR FILING DATE: 1997-09-22
; PRIOR APPLICATION NUMBER: 60/345,690
; PRIOR FILING DATE: 2002-01-03
; PRIOR APPLICATION NUMBER: 60/302,176
; PRIOR FILING DATE: 2001-06-28
; PRIOR APPLICATION NUMBER: 60/027,368
; PRIOR FILING DATE: 1996-09-23
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
; LENGTH: 21
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: IL-10 forward.
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(21)
; OTHER INFORMATION: IL-10 forward.
US-10-083-720A-10

Query Match 2.1%; Score 15.8; DB 1; Length 21;
Best Local Similarity 89.5%; Pred. No. 40;
Matches 17; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy        325 AGAGCTCCGAGATGCCATC 343
              ||| |||||||||||| ||
Db          2 AGATCTCCGAGATGCCTTC 20
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RESULT 11
US-09-866-108A-7246
; Sequence 7246, Application US/09866108A
; Patent No. 6686188
; GENERAL INFORMATION:
; APPLICANT: GU, Yizhong
; APPLICANT: JI, Yonggang
; APPLICANT: PENN, Sharron G.
; APPLICANT: HANZEL, David K.
; APPLICANT: RANK, David R.
; APPLICANT: CHEN, Wensheng
; APPLICANT: SHANNON, Mark
; TITLE OF INVENTION: MYOSIN-LIKE GENE EXPRESSED IN HUMAN HEART AND MUSCLE
; FILE REFERENCE: AEOMICA-7
; CURRENT APPLICATION NUMBER: US/09/866,108A
; CURRENT FILING DATE: 2001-05-25
; PRIOR APPLICATION NUMBER: US 60/207,456
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: GB 24263.6
; PRIOR FILING DATE: 2000-10-04
; PRIOR APPLICATION NUMBER: US 60/236,359
; PRIOR FILING DATE: 2000-09-27
; PRIOR APPLICATION NUMBER: PCT/US01/00666
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00667
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00664
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00669
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00665
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00668
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: PCT/US01/00663
; PRIOR FILING DATE: 2001-01-30
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 15755
; SOFTWARE: Aeomica Sequence Listing Engine
; Patent No. 6686188
; SEQ ID NO 7246
; LENGTH: 17
; TYPE: DNA
; ORGANISM: Homo sapiens

-09-863-049B-13
Sequence 13, Application US/09863049B
Patent No. 6824972
GENERAL INFORMATION:
APPLICANT: Kenwrick, Sue J.
APPLICANT: Nelson, David L.
APPLICANT: Aradhya, Swaroop
APPLICANT: D'Urso, Michele
APPLICANT: Woffendin, Hayley
APPLICANT: Munnich, Arnold
APPLICANT: Smahi, Asmae
APPLICANT: Israel, Alain
APPLICANT: Poustka, Annemarie
APPLICANT: Lewis, Richard A
APPLICANT: Levy, Moise
APPLICANT: Heiss, Nina
TITLE OF INVENTION: Diagnosis and Treatment of Medical Conditions Associated with Def
TITLE OF INVENTION: NFKAPPA B (NF-kB) Activation
FILE REFERENCE: HO-P01961US1
CURRENT APPLICATION NUMBER: US/09/863,049B
CURRENT FILING DATE: 2001-05-22
PRIOR APPLICATION NUMBER: US 60/206,223
PRIOR FILING DATE: 2000-05-22
NUMBER OF SEQ ID NOS: 79
SOFTWARE: PatentIn version 3.1
SEQ ID NO 13
LENGTH: 20
TYPE: DNA
ORGANISM: Human
US-09-863-049B-13

Query Match 2.0%; Score 15.4; DB 1; Length 20;
Best Local Similarity 94.1%; Pred. No. 43;
Matches 16; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 541 CCAGCAGCAGATGGCTG 557
|| ||||||||||||||||
Db 4 CCTGCAGCAGATGGCTG 20

RESULT 24
US-09-180-783-3
Sequence 3, Application US/09180783
Patent No. 6242181
GENERAL INFORMATION:
APPLICANT: Siffert, Winfried
TITLE OF INVENTION: THE USE OF A GENETIC MODIFICATION IN THE GENE FOR HUMAN
TITLE OF INVENTION: G PROTEIN b3 SUBUNIT FOR THE DIAGNOSIS OF DISEASES
FILE REFERENCE: 1135-2
CURRENT APPLICATION NUMBER: US/09/180,783
CURRENT FILING DATE: 1999-03-17
PRIOR APPLICATION NUMBER: PCT/EP97/02250
PRIOR FILING DATE: 1997-05-02
PRIOR APPLICATION NUMBER: DE 19619362.1
PRIOR FILING DATE: 1996-05-14
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 3
LENGTH: 20
TYPE: DNA
ORGANISM: Homo sapiens
US-09-180-783-3

Query Match 2.0%; Score 15.2; DB 1; Length 20;
Best Local Similarity 85.0%; Pred. No. 47;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 513 TGCGGGAGGTGGAGCACCTG 532
|| |||||| ||||||| |||
Db 1 TGGGGGAGATGGAGCAACTG 20

US-09-467-082-47/c
Sequence 47, Application US/09467082
GENERAL INFORMATION:
APPLICANT: Brett P. Monia
APPLICANT: Lex M. Cowsert
TITLE OF INVENTION: ANTISENSE MODULATION OF PKA CATALYTIC SUBUNIT C-ALPHA EXPRESSION
FILE REFERENCE: RTS-0088
CURRENT APPLICATION NUMBER: US/09/467,082
CURRENT FILING DATE: 1999-12-17
NUMBER OF SEQ ID NOS: 49
SEQ ID NO 47
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Antisense Oligonucleotide
US-09-467-082-47

Query Match 2.0%; Score 15.2; DB 1; Length 20;
Best Local Similarity 85.0%; Pred. No. 47;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 599 GGGGAGCTGCAGGAGAGCCA 618
||||||| || || ||||||
Db 20 GGGGAGCCGCTGGGGAGCCA 1

RESULT 26
US-09-658-679A-61/c
Sequence 61, Application US/09658679A
Patent No. 6444464
GENERAL INFORMATION:
APPLICANT: Ian Popoff
APPLICANT: Jacqueline Wyatt
TITLE OF INVENTION: ANTISENSE MODULATION OF E2F TRANSCRIPTION FACTOR 2 EXPRESSION
FILE REFERENCE: RTS-0186
CURRENT APPLICATION NUMBER: US/09/658,679A
CURRENT FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 87
SEQ ID NO 61
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Antisense Oligonucleotide
US-09-658-679A-61

Query Match 2.0%; Score 15.2; DB 1; Length 20;
Best Local Similarity 85.0%; Pred. No. 47;
Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 548 CAGATGGCTGAGGACAAGGC 567
|| || ||||||||||||||
Db 20 CACCTGACTGAGGACAAGGC 1

RESULT 27
US-09-081-385-131
Sequence 131, Application US/09081385
Patent No. 6593456
GENERAL INFORMATION:
APPLICANT: Gatanaga, T.
APPLICANT: Granger, G.A.
TITLE OF INVENTION: Factors Altering Tumor Necrosis
TITLE OF INVENTION: Factor Receptor Releasing Enzyme Activity, and Methods
TITLE OF INVENTION: of Use Thereof
NUMBER OF SEQUENCES: 154
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 PAGE MILL ROAD
CITY: Palo Alto
STATE: CA
COUNTRY: USA

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;   LOCATION: (1)..(22)
;   OTHER INFORMATION:
US-09-863-049B-61

  Query Match             2.9%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 3.2;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        344 CGGCAGAGCAACCAGATTCTGC 365
              ||||||||||||||||||||||
Db          1 CGGCAGAGCAACCAGATTCTGC 22


RESULT 2
US-09-863-049B-53/c
; Sequence 53, Application US/09863049B
; Patent No. 6824972
; GENERAL INFORMATION:
;  APPLICANT: Kenwrick, Sue J.
;  APPLICANT:  Nelson, David L.
;  APPLICANT:  Aradhya, Swaroop
;  APPLICANT:  D'Urso, Michele
;  APPLICANT:  Woffendin, Hayley
;  APPLICANT:  Munnich, Arnold
;  APPLICANT:  Smahi, Asmae
;  APPLICANT:  Israel, Alain
;  APPLICANT:  Poustka, Annemarie
;  APPLICANT:  Lewis, Richard A
;  APPLICANT:  Levy, Moise
;  APPLICANT:  Heiss, Nina
;  TITLE OF INVENTION: Diagnosis and Treatment of Medical Conditions Associated with Def
;  TITLE OF INVENTION:  NFKAPPA B (NF-kB) Activation
;  FILE REFERENCE: HO-P01961US1
;  CURRENT APPLICATION NUMBER: US/09/863,049B
;  CURRENT FILING DATE:  2001-05-22
;  PRIOR APPLICATION NUMBER: US 60/206,223
;  PRIOR FILING DATE: 2000-05-22
;  NUMBER OF SEQ ID NOS: 79
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 53
;   LENGTH: 21
;   TYPE: DNA
;   ORGANISM: Human
US-09-863-049B-53

  Query Match             2.6%;  Score 20;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 6.9;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        645 AATGCCAGGCTCTGGAGGGT 664
              ||||||||||||||||||||
Db         20 AATGCCAGGCTCTGGAGGGT 1


RESULT 3
US-09-396-196G-13872
; Sequence 13872, Application US/09396196G
; Patent No. 6821724
; GENERAL INFORMATION:
;  APPLICANT: Michael Mittmann
;  APPLICANT:  David Mack
;  APPLICANT:  David Lockhart
;  APPLICANT:  Affymetrix, Inc.
;  TITLE OF INVENTION: Methods of Genetic Analysis
;  FILE REFERENCE: 3101.1
;  CURRENT APPLICATION NUMBER: US/09/396,196G
;  CURRENT FILING DATE:  1999-09-15
;  PRIOR APPLICATION NUMBER: 60/100,678
;  PRIOR FILING DATE: 1998-09-17
;  NUMBER OF SEQ ID NOS: 127806
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13872
;   LENGTH: 25
;   TYPE: DNA
;   ORGANISM: Mus musculus
US-09-396-196G-13872

  Query Match             2.6%;  Score 19.8;  DB 1;  Length 25;
  Best Local Similarity   91.3%;  Pred. No. 10;
  Matches   21;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        733 CAGCGTGCAGGTGGACCAGCTGC 755
              || |||||||||| ||||||||
Db          3 CAACGTGCAGGTGGCCCAGCTGC 25


RESULT 4
US-09-863-049B-55/c
; Sequence 55, Application US/09863049B
; Patent No. 6824972
; GENERAL INFORMATION:
;  APPLICANT: Kenwrick, Sue J.
;  APPLICANT:  Nelson, David L.
;  APPLICANT:  Aradhya, Swaroop
;  APPLICANT:  D'Urso, Michele
;  APPLICANT:  Woffendin, Hayley
;  APPLICANT:  Munnich, Arnold
;  APPLICANT:  Smahi, Asmae
;  APPLICANT:  Israel, Alain
;  APPLICANT:  Poustka, Annemarie
;  APPLICANT:  Lewis, Richard A
;  APPLICANT:  Levy, Moise
;  APPLICANT:  Heiss, Nina
;  TITLE OF INVENTION: Diagnosis and Treatment of Medical Conditions Associated with De
;  TITLE OF INVENTION:  NFKAPPA B (NF-kB) Activation
;  FILE REFERENCE: HO-P01961US1
;  CURRENT APPLICATION NUMBER: US/09/863,049B
;  CURRENT FILING DATE:  2001-05-22
;  PRIOR APPLICATION NUMBER: US 60/206,223
;  PRIOR FILING DATE: 2000-05-22
;  NUMBER OF SEQ ID NOS: 79
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 55
;   LENGTH: 21
;   TYPE: DNA
;   ORGANISM: Human
US-09-863-049B-55

  Query Match             2.6%;  Score 19.4;  DB 1;  Length 21;
  Best Local Similarity   95.2%;  Pred. No. 8.9;
  Matches   20;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        473 CTGGAGAAGCTCGATCTGAAG 493
              || ||||||||||||||||||
Db         21 CTCGAGAAGCTCGATCTGAAG 1


RESULT 5
US-09-863-049B-63
; Sequence 63, Application US/09863049B
; Patent No. 6824972
; GENERAL INFORMATION:
;  APPLICANT: Kenwrick, Sue J.
;  APPLICANT:  Nelson, David L.
;  APPLICANT:  Aradhya, Swaroop
;  APPLICANT:  D'Urso, Michele
;  APPLICANT:  Woffendin, Hayley
;  APPLICANT:  Munnich, Arnold
;  APPLICANT:  Smahi, Asmae
;  APPLICANT:  Israel, Alain
;  APPLICANT:  Poustka, Annemarie
;  APPLICANT:  Lewis, Richard A
;  APPLICANT:  Levy, Moise
;  APPLICANT:  Heiss, Nina
;  TITLE OF INVENTION: Diagnosis and Treatment of Medical Conditions Associated with Def
;  TITLE OF INVENTION:  NFKAPPA B (NF-kB) Activation
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